

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JONATHAN D. PARKER,
AARON J. PEPER and BRIAN D. MACLEOD

Appeal No. 2003-0214
Application 09/441,490

ON BRIEF

Before COHEN, FRANKFORT, and MCQUADE, Administrative Patent Judges.

MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Jonathan D. Parker et al. appeal from the final rejection (Paper No. 10) of claims 1 and 3 through 31, all of the claims pending in the application.

THE INVENTION

The invention relates to "a bulk palletizer with a programmable, cantilevered arm" (specification, page 1).

Representative claim 1 reads as follows:¹

¹ The following terms in the appealed claims lack a proper antecedent basis and are deserving of correction in the event of further prosecution before the examiner: "the gate" and "the crowders" in claim 9; "the bulk product feeder" and "the tier

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1. An apparatus for bulk palletizing a load comprising:
a tier building system;
a pallet station;
a tier sheet station;
a load build area;
a top frame station;
a dunnage supply line; and
a programmable robot, including a single means for
transferring pallets, tiers of bulk product, tier sheets and top
frames to the load build area wherein the programmable, robot
includes a microprocessor and software configured to build a bulk
load by sequentially feeding a pallet, a tier of bulk product, a
tier sheet, a tier of bulk product and a top frame as necessary
to the load building area.

THE EVIDENCE

The items relied on by the examiner as evidence of
obviousness are:

Genov et al. (Genov)	6,142,722	Nov. 7, 2000
Corsini	6,238,173	May 29, 2001

The item relied on by the appellants as evidence of non-
obviousness is:

The 37 CFR § 1.132 Declaration of Charles R. Kaufman
made of record as part of Paper No. 8.

THE REJECTION

Claims 1 and 3 through 31 stand rejected under 35 U.S.C.
§ 103(a) as being unpatentable over Corsini in view of Genov.

building area" in claim 22; "the pushers" in claim 25; "the
sequence" in claim 27; "the load build area" in claims 28 and 29;
and "the feeding steps" in claim 30.

Attention is directed to the appellants' main and reply briefs (Paper Nos. 12 and 16) and to the Office actions dated August 28, 2001 and January 30, 2002 and the examiner's answer (Paper Nos. 3, 7 and 14) for the respective positions of the appellants and examiner regarding the merits of this rejection.

DISCUSSION

Corsini, the examiner's primary reference, discloses an apparatus and method for arranging groups of products, e.g., die-cut packaging blanks, on a pallet. The apparatus 1 includes an initial station 8 for receiving stacks 3 of the products from a forming machine (not shown), a station 4 for forming the stacks into ranks 6, i.e., rows of stacks having lengths essentially equal to the width of a pallet, conveyor means 5 for transporting the stacks 3 from the initial station 8 to the rank forming station 4, a pallet loading station 12, a roller set 30 for conveying the ranks from the rank forming station 4 to the pallet loading station 12, a motor driven roller set 31 beneath the rank forming station 4 and the roller set 30 for feeding pallets 7 to the pallet loading station 12, a movable arm 10 fitted with a claw 11 for placing ranks on a pallet so as to form one or more layers 15, and means 14 including a swivelling arm 39 having suction cups 41 for laying a separating sheet 16 stored at an

area 40 on the top of each layer on the pallet. After describing the foregoing structure, Corsini adds that "all components may be replaced with technically equivalent elements" (column 5, lines 45 and 46).

The examiner concedes that Corsini does not respond to the limitations in independent claim 1 requiring a programmable robot including a single means for transferring pallets, tiers of bulk product, tier sheets and top frames to a load build area, the corresponding limitations in independent claim 27 requiring a programmable robot with an end-of-arm tool incorporating the full tier pickup, tier sheet pickup, pallet pickup and top frame pickup wherein the single robot performs all functions in the sequence, or the corresponding limitations in independent claim 30 requiring the step of carrying out feeding steps to a load building area with a single programmable robot to sequentially feed a pallet, a tier of bulk product, a tier sheet, a tier of bulk product and a top frame as necessary. As indicated above, Corsini employs separate and distinct mechanisms (roller set 31, movable arm 10 and claw 11, and swivelling arm 39 and suction cups 41) for transferring pallets 7, tiers of bulk product (ranks 6) and tier sheets (separating sheets 16) to a load build area

(pallet loading station 12). Corsini does not disclose any top frame structure.

Genov pertains to "systems for loading and unloading substrates [e.g., semiconductor wafers] into and from a processing environment" (column 1, lines 7 and 8). As described by Genov,

a robot having an articulating robot arm is disposed in a load lock chamber. The load lock chamber, itself maintained under controlled micro environment conditions, functions to interface various processing stations of a micro environment system, such as one used for processing of semiconductor wafers, with the exterior of the micro environment system. The robot serves to load and unload the wafers into the micro environment system by way of the load lock chamber, via ports in the load lock chamber which mate with containers, or pods, in which the wafers are stored during transport to and from the micro environment system. The robot also serves the function of opening and closing doors of the ports of the load lock chamber and of the pods, and of parking the doors at remote locations when the pods are being accessed [column 4, lines 24 through 39].

With regard to the dual functionality of the robot arm, Genov explains that

[t]he pod and load lock chamber doors are designed to interface with a door handling mechanism, in the form of a door gripping tool, fixed or removably mounted on the robot arm. In a first, fixed configuration, the door gripping tool is mounted on an end effector of the robot arm, which also supports a substrate handling tool for use after the doors have been removed. Alternatively, the door gripping tool

and the substrate handling tool may be interchangeable components removably mountable on the robot arm. A combination of interchangeable and fixed tools can also be used [column 2, lines 1 through 10].

In proposing to combine Corsini and Genov to reject independent claims 1, 27 and 30, the examiner states that

Corsini discloses that all components may be replaced by mechanical equivalents (col 5 lines 45+). Corsini does not show the concept of controlling the arm using robotic control means. Genov et al teach the concept of using a single robot means to perform multiple functions, such as, removing an article and loading chamber doors and transferring other articles (col 1 lines 60+). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Corsini with a single robot means to perform multiple functions as taught by Genov et al to eliminate separate stations [Paper No. 7, page 2].

The examiner's analysis distills the appellants' invention to a gist or concept while ignoring express limitations in the claims. This superficial mode of claim interpretation is improper as it disregards the claimed subject matter as a whole. See Bausch & Lomb, Inc., v. Barnes-Hind/Hydrocurve Inc., 796 F.2d 443, 448-49, 230 USPQ 416, 420 (Fed. Cir. 1986), cert. denied, 484 U.S. 823 (1987). Even if the Genov reference is deemed to be analogous art (the appellants urge that it is not), its disclosure of a multi-function robot arm specifically designed for use in a semiconductor load lock chamber would not have suggested modifying the palletizing apparatus and method

disclosed by Corsini so as to meet the particular programmable robot limitations in independent claims 1, 27 and 30. This evidentiary gap in the disparate teachings of the two references finds no cure in Corsini's broad and somewhat ambiguous statement that "all components may be replaced with technically equivalent elements" (column 5, lines 45 and 46). The examiner's implication that the sort of multi-function robot arm disclosed by Genov would have been recognized by the artisan as an equivalent to the collective component handling mechanisms disclosed by Corsini is completely unfounded, and in any event would not be dispositive since expedients which are functionally and mechanically equivalent are not necessarily obvious in view of one another (see In re Scott, 323 F.2d 1016, 1019, 139 USPQ 297, 299 (CCPA 1963)).²

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of independent claims 1, 27 and 30, and dependent claims 3 through 26, 28, 29 and 31, as being unpatentable over Corsini in view of Genov.

² As the combined teachings of Corsini and Genov fail to establish a prima facie case of obviousness with respect to the subject matter recited in the appealed claims, it is not necessary to delve into the merits of the appellants' declaration evidence of non-obviousness.

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SUMMARY

The decision of the examiner to reject claims 1 and 3
through 31 is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
)	
)	APPEALS AND
CHARLES E. FRANKFORT)	
Administrative Patent Judge)	INTERFERENCES
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JOHN P. MCQUADE)	
Administrative Patent Judge)	

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